JETP Letters 2002 vol.76 N10, pages 633-636

Ultrahigh-frequency NMR of Tm3+ ions in single crystals of thulium ethylsulfate in high magnetic fields

Abubakirov D., Naletov V., Tagirov M., Tayurskii D., Yudin A.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

Resonant transitions predicted earlier between low-lying electron-nuclear sublevels of the Tm3+ ground state were observed at frequencies up to 700 MHz in a dielectric Van Vleck paramagnet - thulium ethylsulfate single crystal. It is shown that, due to the distortion of the 4f-electron shell of a rare-earth ion in an applied magnetic field, the parameters of electron-nuclear interaction become field-dependent. © 2002 MAIK Nauka/Interperiodica".

http://dx.doi.org/10.1134/1.1541051